

Round 4 results — Run Marouane_eQQ_EnM-BTN submitted from Marouane

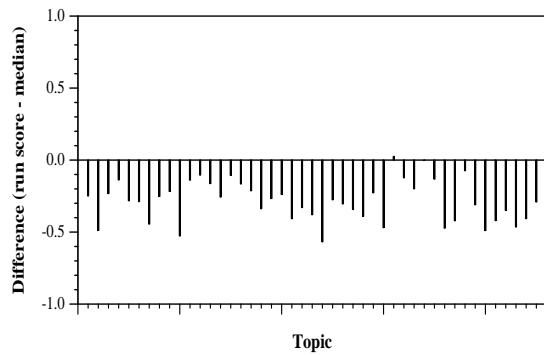
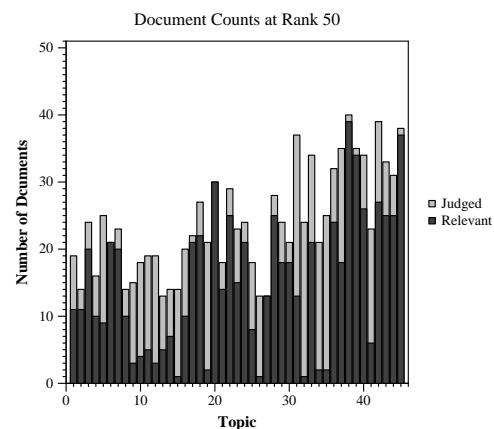
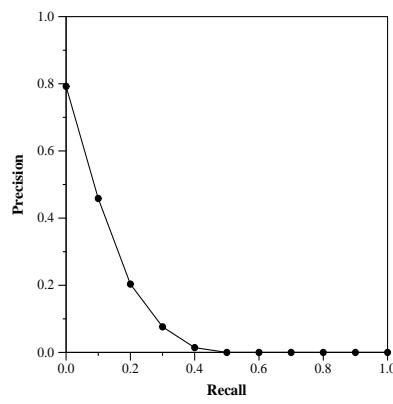
Run Description

In this run we rank the documents using Ensemble Model (EnM), $\text{EnM} = 0.38 * \text{BM25} + 0.34 * \text{TFIDF} + 0.28 * \text{NMF}$. We train/rank on a small subset (#Papers 18674, #Tokens 24909), papers published after 2019-12, containing PMC parsed file Please see the [1](7.2 Coherence) to see why we are using NMF. NMF stands for Non-negative Matrix Factorization. We expand the Query+Question using "Topic models RM" please see [1](Section 3.3). [1] <https://www.kaggle.com/atmarouane/covid-19-search-engine-indexing-by-lda-enm> [2] Indexing by Latent Dirichlet Allocation and Ensemble Model

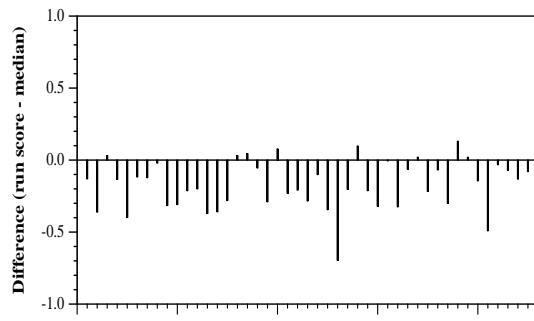
| Summary Statistics | |
|-------------------------------|----------------------|
| Run ID | Marouane_eQQ_EnM-BTN |
| Topic type | feedback |
| Contributed to judgment sets? | yes |

| Overall measures | |
|--------------------------|----------------|
| Number of topics | 45 |
| Total number retrieved | 44996 |
| Total relevant | 5824 |
| Total relevant retrieved | 1639 |
| MAP | 0.1111 |
| Mean Bpref | 0.2305 |
| Mean NDCG@20 | 0.4558 |
| Mean RBP(p=0.5) | 0.6079 +0.0015 |

| Document Level Averages | |
|-------------------------|--------|
| Precision | |
| At 5 docs | 0.6622 |
| At 10 docs | 0.5756 |
| At 15 docs | 0.5304 |
| At 20 docs | 0.4744 |
| At 30 docs | 0.3970 |
| R-Precision | |
| Exact | 0.1699 |

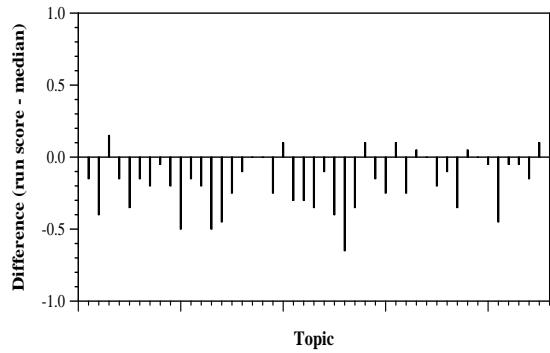


Per-topic difference from median bpref for all Round 4 runs

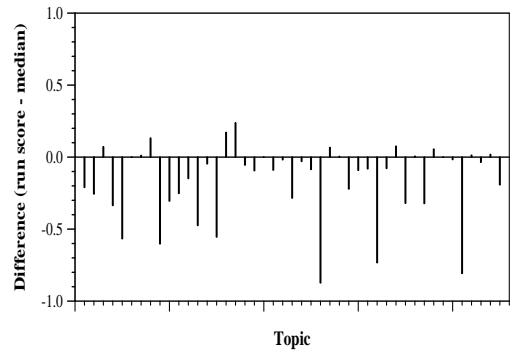


Per-topic difference from median NDCG@20 for all Round 4 runs

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Per-topic difference from median P@20 for all Round 4 runs



Per-topic difference from median RBP($p=0.5$) for all Round 4 runs